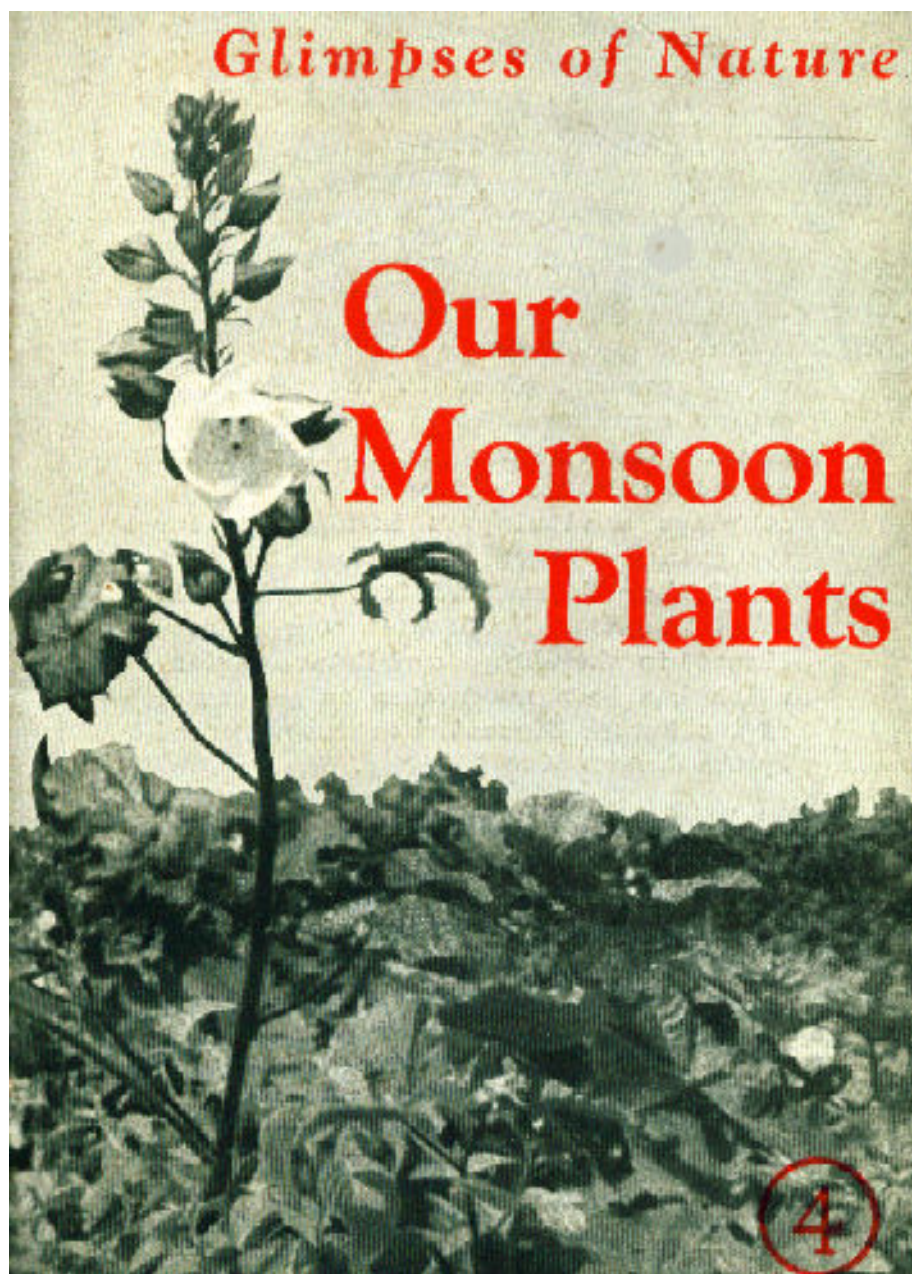




Glimpses of Nature Series (No. 4)

OUR MONSOON PLANTS

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1. TALIMKHANA (*Asteracantha longifolia*)

This thorny shrub attracts attention by the conspicuous colour of its flowers which may vary from purple-blue to pale violet. The flowers are borne in whorls at each node. It is a perennial, and flowers almost throughout the year. All over the country large patches of swampy places are covered with it, while during the monsoon it is common in damp waste places and along the roadside. This shrub, 2 to 5 feet high, is a cluster of unbranched erect stout stems with thickened nodes, having long sharp spines and long hair and a whorl of two large and four small leaves. The seeds, known as “Talim-khana”, are used medicinally.

2. INDIAN FLEABANE (*Vernonia cinerea*)

This small herb, bearing tiny brush-like flowers, is found throughout India in the countryside and also as a weed in fields and gardens. As it can grow under different conditions of moisture and soil, the height of the plant and the size of leaves and flowers vary considerably. Each brush-like flower is really composed of a number of tiny flowers. When the ‘seeds’ (really fruits) ripen, small powder-puff-like balls are seen on the plant. Everywhere we can see many species of this plant having white, pink, violet, reddish or purple flowers.

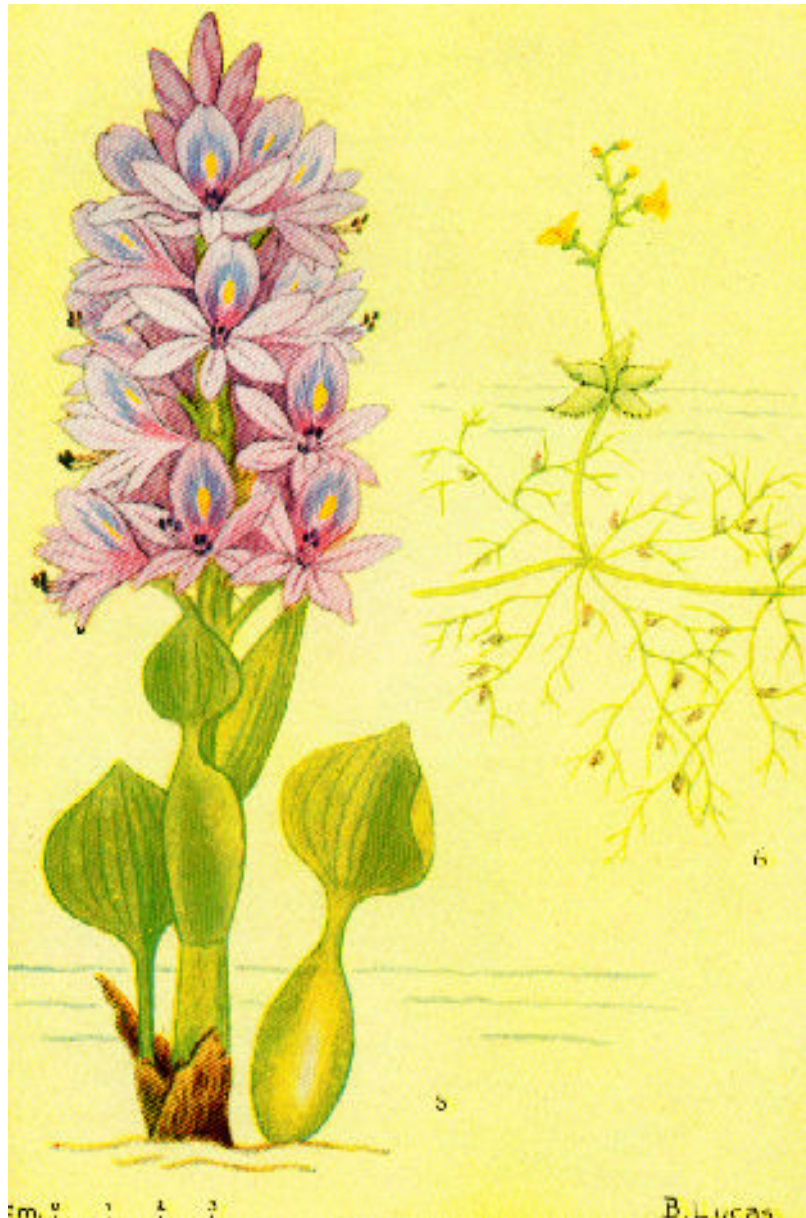


3. GLORY LILY (*Gloriosa superba*)

Very few flowers can surpass the gorgeous beauty of the Glory Lily. The array of changing colours of the delicate curved petals with wavy margins is something peculiar to this flower. The bud is pale green, and as it grows, it passes through various shades of yellow, finally opening out with golden yellow petals. In a day or two, bright red colour appears at the tip of the petals and spreads down to the base. Changing to blood-red the petals finally turn to brick-red when the flower dries up, about a week after its opening. All over the country this climber is found, generally on hedges, climbing the support with its elongated leaf tips. The underground stem tuber sends out shoots above the ground only during the monsoon.

4. INDIGO PLANT (*Indigofera enneaphylla*)

The small bunches of tiny bright reddish-crimson flowers of this shrub show up well against the dark green foliage. The plant, about 18 inches long, branches freely and has a tendency to trail along the ground. In the monsoon-it occupies large patches of ground all over the country. Indigo can be produced from this plant, but it is not the species formerly cultivated in our country on a Commercial scale. About 40 species are found in India.



5. WATER HYACINTH (*Eichhornia crassipes*)

A part of a lake or slow-flowing river covered with 6 to 10 inch bunches of beautiful flowers of mauve or lilac colour of this floating plant is indeed a beautiful sight. But its rapid spread ultimately obstructs the flow of water, so this plant has become a menace in our country, particularly in the eastern parts. A native of South America, it was introduced into India as a garden plant about fifty years ago, and has now spread all over the country. Its creeping stems, which develop into new plants, readily separate from the parent plant and move away with the help of bladder-like leaf stalks serving as floats, while the seeds are dispersed by wind and water.

6. YELLOW BLADDER WORT (*Utricularia stellaris*)

This is one of the plants which can capture and digest tiny insects and other animals with their bladder-like parts. It is found all over the country in shallow tanks, rice-fields and other flooded places. The floats with small bunches of yellow flowers catch our eye, while the rest of the plant with its bladders is submerged in water. Many species of this group of insectivorous plants are found in our country. Some of them are aquatic while the others grow on wet ground and rock. In all the species the bladders are minute but can be seen with the naked eye.



7. INDIAN BORAGE (*Trichodesma amplexicaule*)

The beautiful blue-purple inverted flowers of this monsoon herb form small colourful patches along the roadside and on waste land. But solitary plants may be met with almost everywhere. The plant grows to a height of about 18 inches and branches freely. All parts of the plant, except the corolla, are covered with stiff or soft hairs. Different species of this plant are found in our country and can be distinguished chiefly by the shape of the calyx which persists on the fruit in a dry condition.

8. BITTER WILD CUCUMBER (*Cucumis callosus*)

In the latter part of the monsoon the symmetrical, bright yellow flowers of this common climber, often spreading on the ground, attract attention in the countryside. The fruit, pale yellow when ripe, has bitter pulp. Found all over India, it belongs to the Cucumber family which includes pumpkins and gourds. Like most of these, it bears on the same plant separate male flowers (with stamens only) in small clusters and a solitary female flower (with pistil only) which can be recognized by a small thickened part (the ovary) below the flower. Most plants of this family have succulent stems and long slender tendrils. The cultivated cucumber has been developed from this plant.

THE GLORY OF THE MONSOON

With the first showers of the monsoon the bare parched ground all over the country is covered with a green carpet of tiny plants. Even on hard black rocks are seen white and brown patches which are really the plants known as fungi and lichens. About the middle of the season the countryside assumes an attractive appearance. During the following four to six weeks several stretches of land are a picturesque and colourful scene, being carpeted with flowers of various colours of the different monsoon shrubs and creepers. A few of these beautiful monsoon plants are described in this book.

A walk in the rainy season round any village, town or even a big city will reveal a number of beauty spots and attractive corners. You may be familiar with some of the plants, but several others may be unknown to you.

It will be of interest to you, as also to others, if you keep a record of monsoon plants in your locality. Plants can be identified from good sketches or from preserved (properly dried) specimens. Unless they have medicinal or economic value, many plants do not have common or local names; or if they have, these often differ from place to place even in a region over which a single language is spoken. But all plants have scientific names. A plant has the same scientific name all the world over; that is why it is so convenient to use these.

What is this scientific name? Scientists have studied all the plants of the world and have divided them into a number of families. In the case of flower-bearing plants this division or classification is mainly based on the arrangement of different parts of the flower. Each Family or Natural Order as it is termed in science is made up of a number of groups or genera (plural of genus). Each genus comprises different kinds or species. This classification was done by European scientists who usually used Latin and Greek words, or sometimes local names themselves, as scientific names. The words they used denote in most cases some character of the plant. The first word stands for the genus and the second for the species. For example, in the name *Sida acuta*, 'Sida' which is a Greek word for a water lily, stands for the genus and 'acuta' which means a very narrow tip (of the leaf) stands for the species. There are many species of 'Sida'. This plant belongs to the Shoe flower family (Natural Order: Malvaceae) to which the cotton, plant also belongs. You can see the similarity of structure in the flowers of the Sida, the cotton flower and the shoe flower.



9. BLUE IPOMOEA (*Ipomoea nil*)

The bell-shaped or funnel-shaped flowers of different species of *Ipomoea* glistening in the sunlight are a common sight all over the country. The flowers of many wild species, like the one illustrated here, are seen during the monsoon, while those of the cultivated species are to be found throughout the year. Most species of *Ipomoea* twine round a support while some creep along the ground. The colours of the flowers range from pure white to dark blue or purple and all shades of yellow and crimson.

10. WILD BALSAM (*Impatiens balsamina*)

The freshness and delicacy of the flowers, the mild fragrance, the curious shape of the corolla, the calyx with its little tail are some of the attractive features of this common herb which is found all over the country. It may be found in large patches on damp ground, and also in small clumps along the roadside and odd places like the roofs of houses or a small depression in a rock where a handful of earth has collected. The plant has soft, succulent stems and leaves and shallow roots. Common wild varieties have pink or white flowers (like the one illustrated), but other colours may be met with, which are escapes from cultivated garden varieties. The cultivated flowers have many whorls of petals.



11. HILL TURMERIC (*Curcuma pseudomontana*)

Soon after the commencement of the rains there may be seen along streams and rivulets attractive bunches of flowers coming up from the ground surrounded by broad leaves. They form bright conspicuous patches on the ground. The mauve-purple coloured parts of this plant (often as red as illustrated) which attract our attention are the coverings— known as bracts — of small clusters of bright yellow flowers which are partly hidden. Many species of this group of plants, which includes the turmeric, are found in our country. Different species may have dark rose, crimson, purple, pink or red bracts, and purple, yellow or white flowers.

12. INDIAN MALLOW (*Sida acuta*)

This slender shrub with its many branches is studded with small yellow flowers during the latter part of the monsoon. Many other plants belonging to the same group have very similar yellow flowers, but with differences in other parts. The plant is fibrous like all others of the group, some of which yield fine strong fibre. Some species grow to a height of 6 to 7 feet and are covered with coarse hairs. Various species may be seen all over the country, along the roadside and the railway track, as well as occupying large patches of waste land.



13. WILD SESAME (*Sesamum Indicum*)

The Wild Sesame with long sprays of beautiful pinkish-purple tubular flowers is one of the most attractive of our monsoon herbs. Found on well-drained soil or on somewhat stony ground all over the country, it may be seen in many places along the side of the road or railway track over long distances. The plant, a cluster of unbranched stems, may grow to a height of four feet and over. The forms of leaves may vary from plant to plant as also sometimes on the same plant. Every flower produces a pod of four compartments fully packed with seeds. This is believed to be the first seed from which men extracted oil.

14. DEW FLOWER (*Commelina benghalensis*)

Two shining dark blue petals, resembling a small blue butterfly, attract our attention to this delicate, soft plant with dark green leaves. The flowers are enclosed in a green sheath shaped like a boat or a funnel, and only the petals protrude above it. This species and others are seen everywhere during the monsoon along the roadside and on wet ground, being particularly common on the edge of tanks and lakes. Flowers of various shades of blue are found in different species, while a few have orange-purple or yellow petals.



15. MONSOON CASSIA (*Cassia tora*)

This is one of the most common annuals growing abundantly all over the country, and vast stretches of waste land are covered with it. Flowers are borne in large numbers during the latter part of the season, but they do not make an attractive show as they are partly hidden by the leaves. This plant can be recognized by the compound leaf of three pairs of leaflets, the flower with five pale yellow petals, the seven stamens and the long slender pods. It may grow to a height of three feet. The tender leaves are used as a vegetable and the seeds, rich in protein, are good as food for cattle.

16. WILD COCKSCOMB (*Celosia argentea*)

The swinging tufts of glistening pinkish flowers of this herb impart a lively touch to the landscape whether it is an open place, a harvested field, a river bank or a railway track. The plant is one of the most common monsoon herbs throughout the country; but all the parts of the plant assume a different appearance according to the soil and situation. The tufts, on being removed from the plant, can remain in good condition without water for over two months. Each tuft consists of a number of small flowers, each of which has a dry and papery corolla and calyx.

NAMES IN ENGLISH' AND INDIAN LANGUAGES

1. Talimkhana; Talamkhana (H) Gokshura (H & M) Talimkhana; Kolsunda (M)

Asteracantha longofolia Nees; Fam. Acanthaceae

2. Indian Fleabane; Sahadevi (H M & G)

Vernonia cinerea Lessing; Fam. Compositae

3. Glory Lily; Kalihari (H) Khadya Nag; Kalalavi (M) Dudhio Bachnag (G)

Gloriosa superba Linnaeus; Fam. Liliaceae

4. Indigo Plant; Bhuiguli (H & M) Bhonyguli (G)

Indigofera enneaphylla Linnaeus; Fam. Leguminosae

5. Water Hyacinth; Jalakumbhi (H M & G)

Eichhornia crassipes Solms; Fam. Pontederiaceae

6. Yellow Bladderwort; Keetbhakshini (H M & G)

Utricularia stellaris Linnaeus; Fam. Lentibulariaceae

7. Indian Borage; Chota Kerlpa (H M & G)

Trichodesma amplexicaule Roth; Fam. Boraginaceae

8. Bitter Wild Cucumber; Karit (H & M) Chiraie (M) Kothibdu (G)

Cucumis callosus Cogniaux; Fam. Cucurbitaceae

9. Blue Ipomoea; Neel Kamalata (H M & G)

Ipomea nil Roth; Fam. Convolvulaceae

10. Wild Balsam; Gulmendi (H & G) Terda (M) Tanmania (G)

Impatiens balsamina Linnaeus; Fam. Geraniaceae

11. Hill Turmeric; Kachura (H & U) Ran Halad; Ambe Halad (M) Kachuri (G)

Curcuma pseudomontana Graham; Fam. Zingiberaceae

12. Indian Mallow; Chota Bala (H M & G) Bariara (H)

Sida acuta Burmann; Fam. Malvaceae

13. Wild Sesame; Til {H & M} Tal (G)

Sesamum indicum Linnaeus; Fam. Pedaliaceae

14. Dew Flower; Bengal Spiderwort; Kanchara (H) Kena {M & G}

Commelina benghalensis Linnaeus; Fam. Commelinaceae

15. Monsoon Cassia; Pavad; Chakvad (H) Takla (M) Kuwadio (G)

Cassia tora Linnaeus; Fam. Leguminosae

16. Wild Cockscomb; Surwari (H) Kurdu (M) Lampdi (G)

Celosia argentea Linnaeus; Fam. Amaranthaceae

(H)-Hindi (M) = Marathi (G) = Gujarati

Vine-leaved Hibiscus. *Hibiscus vitifolius* Linn. (Front cover) Photo: Author.

THE END